

Weather Event Simulator Case Study

Originating Office : WFO Miami
Date of Case : 27 March 2003
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Weather Event : Severe Weather - Tornado/Severe Thunderstorm

Learning Objectives : 1) To review the role of boundaries in tornado genesis.
2) To review concepts related to supercell development, apply them to a real event simulation, and practice warning decision making. The primary concepts to be reviewed include:
cross-stream vorticity, streamwise vorticity, hodograph analysis, relative helicity, and Bulk Richardson Number

Available Data : All radar data for KAMX
: AWIPS model guidance fields
: All AWIPS satellite imagery
: All AWIPS point data.
: All AWIPS redbook graphics.

Time Period of Data : 1200 to 2359 UTC Mar 27, 2003.
(Radar imagery from 1800 UTC)

Type of Simulation : Displaced Real Time Simulation -- Self Guided

Completion Time : One hour

Additional Materials : Electronic copy of Simulation Guide and March 2003 issue of Storm Data (for verification) can be found on the DVD-ROM in the *docs* directory

Installation : Use the CaseInstaller.tcl script to install the case specifying one (1) DVD-ROM, the appropriate directory (e.g., /data/awips) on the appropriate hard drive (e.g., /dev/sdb1). The case directory will be called 2003Mar27.

Special Instructions : This case includes localizations for WES versions 1.0, 1.1, 1.2 and 1.3/2.0. Please "cd" to the 2003Mar27/localizationDataSets subdirectory and extract (zcat | tar -xvf -) the appropriate localization for your version of the WES software.
: The case includes some suggested AWIPS D2D procedures which can be accessed by adding a user named 2003Mar27 to the file: /awips/fxa/data/fxa-users . The procedures are stored in two groups called Water Vapor and KAMX User Functions. They can be accessed by choosing: *File --> Select User ID...* followed by:
File --> Procedures --> Open ... from the D2D interface.